

REMARKS

In item 5 on page 2 of the Office Action, claim 16 was objected to based on the following informality: “it is unclear as to how the two different limitations regarding the second data transfer unit found in lines 12-13, and 14-15 differ from each other.” Upon review of claim 16 in light of the Examiner’s objection it appears that the limitation “a second data transfer unit operable to connect each of said plurality of second data processing units with each other” (see lines 12-13) encompasses the limitation “said second data transfer unit is operable to connect at least one of said plurality of second data processing units in series to another second data processing unit” (see lines 14-15). Thus, it appears that the limitation recited in lines 14-15 is partially redundant to the limitation recited in lines 12-13 of claim 16 (i.e., the limitation recited in lines 12-13 necessarily requires the limitation recited in lines 14-15).

Accordingly, claim 16 has been amended to remove the limitation recited in lines 14-15. In view of the above-discussed amendment, the Applicant respectfully requests that the Examiner withdraw the above-mentioned objection. Please note that the deletion of the limitation recited in lines 14-15 does not substantively affect the scope of the claim, since the limitation recited in lines 12-13 necessarily requires the limitation recited in lines 14-15. As such, it is submitted that this Amendment should be entered after Final Office Action on the basis that it simply overcomes the objection and does not affect the scope of the claim.

In item 6 on page 4 of the Office Actions, claims 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by Baker et al (U.S. 6,347,344 B1). This rejection is respectfully traversed for the following reasons.

Independent (amended) claim 16 recites a data processing system including, in part, (1) a first data processing unit operable to perform data processing according to a program control; (2) a plurality of second data processing units operable to perform data processing under wired logic control, and each of the plurality of second data processing units includes (a) a calculating unit; and (b) a selector unit; (3) a storage unit operable to store data; (4) a first data transfer unit operable to connect the first data processing unit with each of the plurality of second data processing units via the storage unit; and (5) a second data transfer unit operable to connect each of the plurality of second data processing units to each other, wherein the selector unit is operable to determine a destination of a data transfer from among each of the plurality of second data processing units, according to a link map table.

Based on the configuration mentioned above, each of the plurality of second data processing units includes a calculation unit and a selector unit. Further, the data processing system recited in claim 16 includes at least two very different data paths which are established via the operation of the first data transfer unit and the second data transfer unit. For example, a data path is formed by the first data transfer unit by connecting the first data processing unit with each of the plurality of second data processing units, via the storage unit (i.e., a data path is formed from the first processing unit, through the storage unit to each second data processing unit). In addition, another data path is formed by the second data transfer unit connecting each of the plurality of second data processing units with each other (i.e., a data path is formed from one second data processing unit to another data processing unit).

Baker fails to disclose or suggest: (1) a plurality of second data processing units each having a calculating unit and a selector unit; and (2) the two different data paths discussed above which are defined according to the configuration of the first and second data processing units and the first and second data transfer units, wherein (3) a selector unit (of each second data processing unit) determines a destination of a data transfer from among the plurality of second data processing units according to a link map table.

Rather, Baker teaches a multimedia processor 100 which includes a CPU 102, and a fixed function unit 106 connected to a data cache and a data transfer switch 112 (see Fig. 20). Further, Baker teaches that the function unit 106 includes (1) a 3D unit 64 connected to a programmable input/output controller 618, which is connected to a data transfer switch I/F 614, which is connected to data transfer switch 112, and (2) a D cache I/F 616 which is connected to the data cache (see Fig 20).

Based on the configuration discussed above Baker teaches that: (1) a data path is formed between the CPU 102 (i.e., processor) and the fixed function unit 106 via the data cache (i.e., memory) and D cache I/F 616, and (2) a data path is formed between the CPU 102 and the fixed function unit 106 via the data cache (i.e., memory) the data transfer switch 112 and the DTS I/F 614.

On page 3 of the Office Action the Examiner equates the plurality of second data processing units recited in claim 16 with the multiple units of the fixed function unit 116 of Baker. Further, the Examiner equates the calculating unit of each of the second data processing units with the 3D unit 64 of the fixed function unit 106. In addition, on page 4 of the Office

Action the Examiner equates the selector unit of each of the second data processing units with a transfer engine 702 (see Figs. 7 and 8) of the data streamer 122 (see Fig. 20).

Applicants respectfully disagree with the Examiner's position regarding the above-mentioned disclosures of Baker. The multiple units of the fixed function unit 106 do not disclose or suggest a plurality of second data processing units, wherein each second data processing unit includes a calculating unit and a selector unit. Specifically, the Examiner equated the selector unit, of each of the second data processing units, to the data transfer engine 702 of the data transfer switch 112. However, the data transfer engine 702 is not within each of the multiple units of the fixed function unit 106 since the data transfer engine is outside the fixed function unit 106, and thus cannot be contained within the multiple units as required by claim 16. Accordingly, Baker does not disclose or suggest the plurality of second data processing units, each including a selector unit as recited in claim 16.

Further, Applicants respectfully disagree with the Examiner's position that the 3D unit 64 disclosed in Baker teaches that each of a plurality of second data processing units includes a calculating unit. Specifically, if the multiple units of the fixed function unit 106 equate to the plurality of second data processing units of claim 16, then Baker does not disclose or suggest that each of the multiple units of the fixed function unit 106 includes a 3D unit 64, since there is only one 3D unit 64 and the 3D unit 64 is not included within each of a plurality of units. Accordingly, Baker does not disclose or suggest the plurality of second data processing units, each including a calculation unit as recited in claim 16.

Further, on page 4 of the Office Action the Examiner equates the data transfer switch 112 of Baker with the first data transfer unit of claim 16 and equates the DTS I/F 614 with the second data transfer unit of claim 16. However, Applicants respectfully disagree with the Examiner's position. Since Baker does not disclose or suggest a plurality of second data processing units, each including a calculation unit and a selector unit operable to determine a destination of a data transfer from each of the plurality of second data processing units according to a link map table, Baker cannot be said to disclose or suggest first and second data transfer units which form the two data paths discussed above between the first and second data processing units, and Baker cannot be said to disclose or suggest second data processing units, each of which includes a selector unit which determines the destination of a data transfer from each of the plurality of

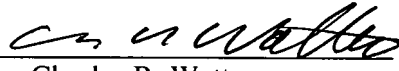
second data processing units according to a link map table. Accordingly, Baker does not disclose or suggest the first and second data transfer units recited in claim 16.

In view of the above, it is respectfully submitted that the Baker reference does not anticipate the invention as recited in claims 16-20. Furthermore, Baker does not suggest the above-discussed limitations of claims 16-20. Therefore, it would not have been obvious to one of ordinary skill in the art to modify the Baker reference so as to obtain the invention of claims 16-20. Accordingly, it is respectfully submitted that claims 16-20 are clearly allowable over the Baker reference.

In item 7 on page 5 of the Office Actions, claims 19-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Baker in view of Lee (US 6,005,937). This rejection is respectfully traversed since, as discussed above, the Baker reference does not disclose or suggest each limitation recited in independent claim 16. Furthermore, the Examiner cited the Lee patent for teaching “wherein said second data processing unit is operable to perform an encoding process,” but the Lee patent provides no teaching or suggestion that would have obviated the above-discussed shortcomings of the Baker patent.

Accordingly, it is clear that the features of claims 19-20 are not taught or suggested by the Baker reference or the Lee reference, or any combination thereof. In addition, it is submitted that a person having ordinary skill in the art at the time of the invention would not have been motivated to modify the references in such a manner as to result in, or otherwise render obvious the present invention as recited in claims 19-20. Thus, claims 19-20 are clearly allowable over the references relied on in the rejection.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

By: 
Charles R. Watts
Registration No. 33,142
Attorney for Applicants

CRW(ALD)/nrj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
May 2, 2007